# IN THE UNITED STATES DISTRICT COURT FOR THE EASTERN DISTRICT OF PENNSYLVANIA

JOHN R. GAMMINO,

v.

Plaintiff, : CIVIL ACTION

NO. 10-2493

SPRINT COMMUNICATIONS COMPANY,

L.P., et al.,

Defendants.

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# MEMORANDUM OPINION AND CLAIM CONSTRUCTION ORDER

RUFE, J. JULY 2, 2013

Plaintiff John Gammino brings this patent infringement action against Defendant Sprint Nextel and its subsidiaries ("Sprint"), alleging that Sprint infringed Gammino's patent.

Currently pending before the Court are the parties' claim construction briefs in which they seek to have the Court construe the patent pursuant to Markman v. Westview Instruments, Inc..¹

Upon consideration of the parties' submissions, and following a technology tutorial and Markman Hearing,² the Court construes the disputed terms herein.

#### I. STANDARD OF REVIEW FOR CLAIM CONSTRUCTION

In <u>Markman v. Westview Instruments, Inc.</u>, the Supreme Court held that the issue of claim construction is a question of law to be decided by the Court.<sup>3</sup> Courts resolve the construction of claims before trial at what is now commonly referred to as a "<u>Markman</u> Hearing." Once a court rules on the claim construction issues explored at the <u>Markman</u> Hearing, cases may either settle or proceed to trial where the jury decides the factual question of whether an infringement occurred.

<sup>2</sup> <u>See</u> Doc. Nos. 117, 118, 121, 125, 126, 128.

<sup>&</sup>lt;sup>1</sup> 517 U.S. 370 (1996).

<sup>&</sup>lt;sup>3</sup> 517 U.S. 370 (1996).

A court's claim construction analysis begins with the language of the claim itself, as the patentee specifically chose this language to describe his invention.<sup>4</sup> If the claim language is clear, then a court may consider other intrinsic evidence, such as the specification and the prosecution history, but only to determine whether such intrinsic evidence requires deviation from the clear language of the claim.<sup>5</sup> If the claim language is unclear, then the court uses the intrinsic evidence to resolve the ambiguity.<sup>6</sup> For example, deviation may be necessary where the patentee chooses to use terms in a manner other than by giving them their ordinary meaning.<sup>7</sup>

If the meaning of the claim cannot be determined from a consideration of the totality of the intrinsic evidence, the court may consider extrinsic evidence. However, a court should be hesitant to turn to extrinsic evidence for the purpose of claim construction. Relying on extrinsic evidence is "proper only when the claim language remains genuinely ambiguous after consideration of the intrinsic evidence. . . . Such instances will rarely, if ever, occur." Extrinsic evidence may never be used to contradict the terms in the claims themselves. 11

<sup>&</sup>lt;sup>4</sup> Interactive Gift Express, Inc. v. Compuserve, Inc., 256 F.3d 1323, 1331 (Fed. Cir. 2001).

<sup>&</sup>lt;sup>5</sup> I<u>d.</u>

<sup>&</sup>lt;sup>6</sup> Id.

<sup>&</sup>lt;sup>7</sup> <u>Id.</u>

<sup>&</sup>lt;sup>8</sup> <u>Id.</u>

<sup>&</sup>lt;sup>9</sup> Extrinsic evidence may always be considered to assist in understanding the underlying technology.

<sup>&</sup>lt;sup>10</sup> <u>Id.</u> (citing <u>Bell & Howell Document Mgmt. Prods. Co. v. Altek Sys.</u>, 132 F.3d 701, 706 (Fed. Cir. 1997) and <u>Vitronics Corp. v. Conceptronic, Inc.</u>, 90 F.3d 1576, 1585 (Fed. Cir. 1996)) (internal quotation marks omitted).

<sup>&</sup>lt;sup>11</sup> <u>Id.</u>

#### II. THE PATENT

Gammino is the owner of U.S. Patent No. 5,809,125 (the '125 Patent or the Patent). <sup>12</sup>

The '125 Patent was designed to block potentially fraudulent international calls. <sup>13</sup> Gammino developed the Patent in early 1992, after being contacted by a representative from the New York City Port Authority Bus Terminal ("PABT") about fraudulent international calls being placed from PABT payphones and billed to calling cards. <sup>14</sup> The Patent describes algorithms and apparatuses for preventing or enabling international telephone calls based on dialing a series of prior to a telephone number. <sup>15</sup>

All telephone calls are initiated by dialing a sequence of numbers. The numbers in the sequence are grouped into several "pluralities" or groups of numbers. Each plurality is a code which conveys different types of information. For example, a caller might dial "101-0288-011-44-207-499-9000." In that sequence, "101," the first plurality, makes the call an "access-code call" to be routed to a different carrier than the default carrier. The second plurality, "0288," identifies the specific carrier, in this case AT&T, and the third plurality, "011," signals that the call is a direct-dialed international call, billable to the line from which it was dialed. <sup>16</sup> If the third plurality is replaced with the code "01," the call is an operator-assisted international call; this code signals to the network to bill the call to a calling card or to the recipient as a collect call,

Gammino also owns two additional, related patents, U.S. Patent Nos. 5,812, 650 (the '650 patent) and 5,359,643 (the '643 patent). Counts III and IV of the Second Amended Complaint alleged infringement of the '650 patent, and Counts V and VI alleged infringement of the '643 patent. The Court granted Sprint's Motion to Dismiss, dismissing Counts V and VI and granted partial summary judgment in favor of Sprint dismissing Counts III and IV. See Doc. Nos. 99, 100. Thus, the Court herein construes only the '125 patent.

<sup>&</sup>lt;sup>13</sup> Day 2 Markman Hr'g Tr. ("Day 2 Hr'g Tr.") 5, Dec. 13, 2011 (Doc. No. 128).

<sup>&</sup>lt;sup>14</sup> Day 2 Hr'g Tr. 15, 18-21.

<sup>&</sup>lt;sup>15</sup> Sprint's Partial Summ. J. Stip. ¶¶ 1–3.

<sup>&</sup>lt;sup>16</sup> Tutorial Hr'g Tr. 32, November 9, 2011 (Doc. No. 125).

and not to the line from which it was dialed.<sup>17</sup>

Gammino asserts that the '125 Patent *selectively* blocks international calls based on predetermined digits occurring in certain locations in the dialing sequence, and does not—like prior art<sup>18</sup>—block *all* international calls.<sup>19</sup> Sprint argues, that like the prior art, the '125 Patent blocks *all* international calls.

The '125 Patent Claims at issue in this case are Claims 8-14, 22-28, and 35-41. The parties present 10 disputed terms which the Court must construe:

- (1) "selectively enabling," "transmitting said dialing sequence," and "transmits said dialing sequence" (appearing in claims 8 and 10);
- (2) "means for receiving" (appearing in claim 8);
- (3) "means for evaluating" (appearing in claim 8);
- (4) "means for transmitting" (appearing in claim 8);
- (5) "predetermined signals [or "predetermined digit sequences" or "test signal value sequences"] which are used to accomplish [or "for"] international dialing" (appearing in claims 8, 22, and 35);
- (6) "irrespective of said second plurality or dialing signals [or "said plurality of further signal values" or "said second group of signal values"]" (appearing in claims 8, 22, and 35);
- (7) "telecommunications device" (appearing in claims 22-28 and 35-41);
- (8) "telecommunications apparatus" (appearing in claims 8-14);
- (9) "means for preventing," and "at least partially preventing operation of" (appearing in claims 14, 22, 28, 35, and 38); and

<sup>17</sup> Id.

Prior art in patent law is information that is available to the public as of the date of the claim invention, including information that could be obviously inferred. See In re Coordinated Pretrial Proceedings In Antibiotic Antitrust Actions, 498 F. Supp. 28, 32 n. 11 (E.D. Pa. 1980), aff'd 676 F.2d 51, 55 (3d Cir. 1982).

<sup>&</sup>lt;sup>19</sup> Second Am. Compl. ¶¶ 9, 13.

<sup>&</sup>lt;sup>20</sup> The Patent contains 49 Claims in total.

(10) "signal value(s)" (appearing in claims 22, 24, 25, 27, 35, 26, 38, 39, 40, and 41).

The parties filed a Joint Statement on Disputed Terms and the Parties' Proposed Interpretations of those contested terms.<sup>21</sup>

#### III. THE PARTIES' PROPOSED CONSTRUCTIONS

The Court begins by framing the parties' dispute. Sprint asserts that the '125 Patent system took analog-only dual-tone multi-frequency ("DTMF") signals representing the number sequence dialed from a wireline payphone and converted these analog signals into a digital sequence which enabled a microprocessor to analyze the sequence to determine if the call was international. If the number was international, the system would block the call. If the number was a domestic call, the dialed number sequence was re-encoded into DTMF signals and sent out on the telecommunications pathway.

Gammino, however, asserts that though the '125 Patent is capable of blocking all international calls, it does not require the blocking of all international calls. He submits that the claims may selectively block international access calls when the third plurality of numbers within the sequence indicates that the call is international <u>and</u> are predetermined numbers. Thus, the crux of the parties' argument is whether the '125 patent blocks <u>all</u> international, access code calls or whether it <u>selectively</u> blocks such calls.

<sup>&</sup>lt;sup>21</sup> Doc. No. 105.

The parties' proposed claim constructions are as follows:

<b>Contested Term</b>	<b>Sprint's Proposed Construction</b>	Gammino's Proposed Construction
(1) "selectively	Establishing a phone call unless	Transmitting dialing sequence to
enabling,"	the phone call is an international,	communications pathway if dialed
"transmitting said	access code call (i.e., if the call is	signals in third plurality are not
dialing sequence," and	an international, access code call,	predetermined signals used for
"transmits said dialing	it is always blocked).	international dialing and if first
sequence"		plurality of dialing signals are not
		further predetermined signals.
(2) "means for	Decoder 120 in telephone 100,	Telephone Device 100, Input device
receiving"	or decoder/DTMF	110, Decoder 120, Switch 150,
	generator/tone converter 260 in	Switch 150a, Telecom Interface and
	interface unit 200, or decoder	Tone Generation 160,
	330 in personal computer	Telecommunications lines 170,
	300. <sup>22</sup>	Phone handset 180, Alternative
		audio source 190, Interface Unit
		200, Telephone 210, Switch 240,
		Switch 240A, Telecommunication
		lines 250, Decoder 260, DTMF to
		Binary 260, Alternate Audio source
		290, PBX system 310, DTMF &
		Detect and Decode 330, Signaling
		Device 340, Telecommunication
		lines 350, PC System 360, Switch
		370, Customer Premise Equipment 320A-320n.
(3) "means for	Microprocessor 130 in	Telephone Device 100, Decoder
evaluating"	telephone 100, or	120, Microprocessor 130,
Cvaraating	microcontroller 230 in	Program memory 140, interface
	interface unit 200.	Unit 200, Memory 220,
	interface and 200.	Microcontroller 230, Decoder
		260, DTMF to Binary 260,
		MTMF & Detect and Decode
		330, Signaling Device 340, PC
		System 360
(4) "means for	To the extent any structure is	Telephone Device 100,
transmitting"	disclosed, the means for	Microprocessor 130, Switch 150,
	transmitting must include:	Switch 150A, Telecom Interface
		and Tone Generation 160,
	Within telephone 100,	Telecommunication lines 170,
	either one or more of the	Phone handset 180, Alternate Audio
	microprocessor 130, switch	Sources 190, Interface Unit 200,
	150/150A, and telecom	Telephone 210, Microcontroller

<sup>&</sup>lt;sup>22</sup> Doc. No. 74 at 31

	interface and tone generation	230, Switch 240, Switch 240A),
	160;	Telecommunications Line 250,
		DTMF to Binary 260, Alternate
	In interface unit 200,	Audio Source 290, PBX System
	microcontroller 230 and/or	310, DTMF & Detect and Decode
	decoder/DTMF generator/tone	330, Signaling Service 340,
	converter 260.	Telecommunications Lines 350, PC
		System 360, Switch 370, Customer
(5) "prodotaminad	The set of all seguences of	Premise Equipment 320A-320n.
(5) "predetermined	The set of all sequences of digits which are used for	Signals programmed into a telecommunications device or
signals [or "predetermined digit	international dialing.	
sequences" or "test	international diamig.	telecommunications apparatus at a particular location in a dialing
signal value		sequence to be compared to
signar value sequences"] which are		subsequently dialed signals for a
used to accomplish [or		determination of whether the
"for"] international		dialed signals are the same as the
dialing"		predetermined signals.
(6) "irrespective of said	Without analyzing the content	(a) "enabled or prevented regardless
second plurality or	of said second plurality of	of the second plurality."
dialing signals [or "said	dialing signals, said plurality of	ı s
plurality of further signal	further signal values, or said	(b) "Enabled or prevented without
values" or "said second	second group of signal values.	caring about the second plurality."
group of signal values"]"		
(7)"telecommunications	"A telephone" or	(a) "Telecommunication device
device"	telecommunications device as	100" depicted in Figures 1A and 1B
	described in the specification	and described at column 3, lines 13
	as "telecommunications device	to column 4, line 37 (including an
	100" depicted in Figures 1A	input device, decoder,
	and 1B and described at	microprocessor, program memory
	column 3, lines 13-21, or	switch, telecom interface and tone
	"telecommunications device	generation, alternate audio source
	210" depicted in Figures 2A,	and phone handset) or
	2B, and 2C and described in	(b) "Telecommunications device
	column 6, lines 47-53.	210" depicted in Figures 2A, 2B
		and 2C, and described in column 6,
(8) "telecommunications	A talanhone or	lines 47-53.
apparatus"	A telephone or telecommunications device 100	Apparatus used in telecommunications, including
apparatus	or 210 and interface unit 160 or	apparatus described at 100-190.
	200, located outside of an	200-290 or 310-370 of the
	external network (or on the	specification, column 3, line 12 to
	same side of a commercial	column 9, line 12, and depicted at
	telecommunications network)	FIG 1A, 1B. 2A, 2B, 2C, 3A or 3B.
		Such apparatus is located in devices
		including switches within and
		merading switches within and

		external to the telephone network.
(9) "means for	Means for preventing:	Means for preventing:
preventing," and "at least partially preventing operation of"	In telecommunications device 100, either one or more of, microprocessor 130, switch 150/150A, and telecom interface and tone generation 160; or  In interface unit 200, either one or more of, microcontroller 230, decoder/DTMF generator/tone converter 260, and switch 240.  Preventing step:  Preventing a phone call if the phone call is an international, access code call (i.e., if the call is an international, access code call, it is always blocked).	Apparatus used in telecommunications, including the apparatus described at 100-190, 200-290 or 310-370 of the specification, column 3, line 12 to column 9, line 12 and depicted at FIG 1A, 1B, 2A, 2B, 2C, 3A or 3B.  (a) "Telecommunication device 100" depicted in Figures 1A and 1B and described at column 3, lines 13 to column 4, line 37 (including an input device, decoder, microprocessor, program memory switch, telecom interface and tone generation, alternate audio source and phone handset) or (b) "Telecommunications device 210" depicted in Figures 2A, 2B and 2C, and described in column 6, lines 47-53.
		Preventing step:  (claim 38) at least partially prevent use of telecommunications device if third group of signal values is located to accomplish international dialing and is identical dialing and is identical to first test signal value sequences and the first group of signal values are identical to the plurality of second test value sequences; or  (claim 22) At least partially prevent use of telecommunications device if at least two of plurality of signal values (in the third plurality) are identical to any one of respective predetermined digit sequences and if further predetermined signal value is identical to further signal value in the first plurality).

(10) "signal value(s)"	Frequency values, in hertz, of an	A dual-tone multi-frequency
	analog, dual-tone multi-	("DTMF") analog signal transferred
	frequency ("DTMF") signal; or	by hertz tones. Under the
	signals transferred by hertz	telecommunications industry's
	tones.	adopted system, two transmitted
	tones.	hertz tones (or two signal values)
		,
		can be converted to one
		corresponding dialing digit of 0, 1,
		2, 3, 4, 5, 6, 7, 8, 9, * and #. The
		following table shows the
		corresponding digits:
		Frequencies
		1209hz 1336hz 1477hz 1633hz
		<b>697hz</b> <u>1 2 3 A</u>
		770hz <u>4</u> 5 6 B
		852hz 7 8 9 C 941hz * 0 # D <sup>23</sup>
		<b>941hz</b> * 0 # D <sup>23</sup>
		A 1 - 1
		As an example, hertz tones 697hz
		and 1209hz correspond to digit "1"
		and those two hertz tones can be
		converted to dialed digit "1."
		Another example is that 852hz and
		1477hz convert to digit "9." <sup>24</sup>

#### A. Sprint's Proposed Claim Construction

Sprint submits that the claim interpretation issues can be narrowed into four categories of claim limitations: (i) "telecommunications," "apparatus," or "device;"(terms (2), (3), (4), (7) and (8)); (ii) "preventing" or "transmitting" dialing signals (terms (1) and (9)); (iii) "predetermined"

<sup>&</sup>lt;sup>23</sup> According to Gammino, the fourth column (A-D) is not in operation in the industry.

<sup>&</sup>lt;sup>24</sup> After the claim construction briefs had been filed, but before the <u>Markman</u> hearing, Gammino attempted to redefine his position regarding the contested term "signal value" to include electrical, optical, and digital signals, in addition to analog hertz DTMF signals. This proposed construction represented Gammino's attempt to construe the '125 patent to make it work with a digital wireless system (like Sprint's). Digital wireless technology is vastly different from wireline payphones. Unlike wireline phones, digital wireless technology does not use DTMF signals in originating the phone call. Since there are no DTMF signals, there is no need for decoders and encoders to convert signals back and forth between analog and digital.

The Court denied Gammino's attempt to amend his proposed construction finding that the amendment came too late in the litigation and that the definition was inconsistent with the definition Gammino advances and swore to in opposing Sprint's Motions for Summary Judgment. See Doc. No. 122. In the absence of an amendment to Gammino's construction, the parties' proposed constructions are consistent. Thus, the below summary of the parties' positions does not include a discussion of this term.

or "test" "signals" or "digit sequences" (term (5)); and (iv) "irrespective of" "said second plurality" or "said plurality of further digit sequences" (term (6)).<sup>25</sup>

Sprint asserts that Limitations (ii), (iii), and (iv) were fully contested by Gammino in a case before the United States District Court for the Northern District of Texas, <u>Gammino v. Southwestern Bell Telephone, L.P.</u>, Civ. A. No. 05-850 ("<u>Southwestern Bell</u>"), and that Gammino's interpretation was rejected by that court. <sup>26</sup> According to Sprint, this Court can save considerable effort by adopting the interpretations of <u>Southwestern Bell</u>, thereby rejecting Gammino's attempt to broaden the definitions of these terms. Sprint does not assert that <u>Southwestern Bell</u> has a preclusive effect on the construction of contested terms here; rather, Sprint asserts that the decision is nevertheless instructive given its thorough and well-reasoned analysis.

(i) <u>Limitation One: "telecommunications" "apparatus" or "device": (terms (2), (3), (4), (7) and (8))</u>

The claim construction proposed by Sprint with respect to these terms cross-references numbered telecommunications devices specifically depicted in the written descriptions and drawings of the claims. The relevant dispute with respect to these terms is the location of the "telecommunications" "apparatus" or "device" (the interface unit). According to Sprint, the interface unit "must necessarily be located on one side of a commercial telecommunications network . . . because the specification clearly describes only a system in which the telephone and interface unit are located on the same side of the telecommunications network." Sprint submits

<sup>&</sup>lt;sup>25</sup> Sprint's initial briefing does not describe the proposed construction of contested term (10). Gammino's briefing also does not describe the construction of this term. This term was the subject of Gammino's Motion to Amend, in which he sought to redefine this claim. See footnote 22, *supra*.

<sup>&</sup>lt;sup>26</sup> <u>See Gammino v. Southwestern Bell Telephone, L.P.,</u> 512 F. Supp. 2d 626 (N.D. Tex. 2007), <u>aff'd</u> 267 F. App'x. 949 (Fed. Cir. 2008).

<sup>&</sup>lt;sup>27</sup> Doc. No. 74 at 15.

that this interpretation is strengthened by the "means-plus-function" legal standard analysis because the structures/figures cited by Sprint as being a "telecommunications" "apparatus" or "device" are the only structures that have a "clear linkage" to the defined function of the apparatus or device.

(ii) Limitation Two: "preventing" or "transmitting" dialing signals (term (9))

Sprint asserts that the Court need not look beyond <u>Southwestern Bell</u> for the meaning of this claim. <u>Southwestern Bell</u> held that the "preventing step" requires the blocking of <u>all</u> international calls. In addition, Sprint submits that even if the Court is to reconsider the Southwestern Bell interpretation, it will find that the same interpretation controls. Additionally, Sprint submits that Gammino made several admissions during the <u>Southwestern Bell</u> litigation that establish that the patent blocks all international calls.

(iii) Limitation Three: "predetermined" or "test" "signals" or "digit sequences" (term (5))

Sprint urges the Court to adopt the <u>Southwestern Bell</u> interpretation of this claim. The <u>Southwestern Bell</u> court construed the term "predetermined sequences [signals] which are used for international dialing" as "the set of *all* digits which are used for international dialing." According to Sprint, "[b]ecause the claimed systems block all international calls it is only logical to interpret the set of digits to which the portions of the dialed number are compared to include all possible sets of digits that signify an international call." <sup>29</sup>

<sup>&</sup>lt;sup>28</sup> Southwestern Bell, 512 F. Supp. 2d at 642.

<sup>&</sup>lt;sup>29</sup> Doc. No. 74 at 30.

(iv) <u>Limitation Four: "irrespective of" "said second plurality" or "said plurality of further digit sequences" (term (6))</u>

Again, Sprint urges the Court to adopt the <u>Southwestern Bell</u> interpretation of this claim. <u>Southwestern Bell</u> construed the term "irrespective of" to mean "without analyzing the content of" the second plurality and Sprint argues that this construction is proper because it is undisputed that the value of the second plurality has no effect on whether the call is blocked.

# B. Gammino's Proposed Claim Construction

Gammino emphasizes that the <u>Southwestern Bell</u> court's construction of claims does not have a preclusive effect on the claim construction here and urges the Court to adopt a different construction of the relevant claims guided by the plain language of the claim language and specification.

According to Gammino, language in the specification reflects selective disablement of international calls, not disablement of all international calls. For example, the specification states that the patent describes a method that "selectively disables the device if particular digits are detected at defined locations in the sequence." Gammino argues that the "selectively disables" language in the claim and specification indicates that the claims should be construed as describing a patent that selectively prevents certain international access code calls; he asserts that the user controls which calls to prevent and may prevent none, some, or many types of international calls. Therefore, Gammino argues that the Court should interpret "predetermined" or "test" "signals" or "digit sequences" (term (5)) as "signals programed into a telecommunications device or telecommunications apparatus at a particular location in a dialing sequence to be compared to subsequently dialed signals for a determination of whether the dialed signals are the same as the predetermined signals."

<sup>&</sup>lt;sup>30</sup> Doc. No. 73, Ex. A, Column 1, Lines 9-15.

Gammino submits that "predetermined signals which are used for international dialing" means "signals used for international dialing in the third plurality which are input into a telecommunications device for later comparison with signals dialed in the third plurality by dialer." According to Gammino, the only calls which are prevented are those in which the number dialed in the third plurality matched the predetermined number or numbers selected by the user. Again, Gammino points to the "selectively disables" language of the claim description in support of this construction. Gammino advances this same argument with respect to each claim involving this "selective disabling" language.

As to the "irrespective of the second plurality" language, which Sprint maintains means the content of the second plurality is irrelevant and therefore not analyzed, Gammino asserts the second plurality is analyzed but its content does not affect whether the call is prevented or enabled. The second plurality designates the carrier of the call. Although this does not affect whether the call is prevented or allowed, it is analyzed according to Gammino.

Finally, Gammino supports his construction of "telecommunications apparatus" or "device" by referencing figures in the specification, which were referred to at length during the <u>Markman</u> hearing.

#### IV. DISCUSSION

# **A.** Southwestern Bell Litigation<sup>31</sup>

In April 2005, Gammino sued Southwestern Bell Telephone, L.P. alleging, *inter alia*, that it infringed forty-two claims of the '125 patent. Southwestern Bell counterclaimed for a

<sup>31</sup> The Court does not find the Texas Court's construction of the contested terms at issue binding or dispositive. This does not appear to be in dispute. Although Gammino interpreted Sprint's initial submission as advancing the preclusive effect of the Southwestern Bell decision, Sprint's subsequent briefing has made clear that their argument is that the decision correctly interprets most of the claims at issue, and is therefore instructive and persuasive authority on which this Court may rely. The Court agrees that the decision is not dispositive, but concurs with Sprint that the decision is highly persuasive.

declaration of invalidity and non-infringement,<sup>32</sup> and moved for summary judgment on those bases.<sup>33</sup> After Sprint filed for summary judgment, the Texas court instructed Gammino to reduce the number of asserted claims.<sup>34</sup> As directed, on October 20, 2006 Gammino filed the Amended Disclosure, which reduced the number of asserted claims from forty-six to twenty-seven.<sup>35</sup> On March 23, 2007, the Texas court granted Southwestern Bell's motion for summary judgment, holding that *Gammino's own interpretation* of the claims of his patents was a binding admission that prior art (the accused call-blocking services) invalidated the asserted claims of his patents.

In an alternative holding, the Texas court held that Southwestern Bell had not infringed Gammino's patents. To do so, the Texas court utilized intrinsic evidence, including a reading of the claims, the specification of the patents, and the prosecution history of the patents to construe the following language in Gammino's claims: 1) "preventing step," "means for preventing," and "prevention means;" 2) "predetermined signals or digit sequences used for or to accomplish international dialing;" and 3) "irrespective of." After construing those terms, the court examined whether Gammino had "show[n] that the accused device [met] each claim limitation either literally or under the doctrine of equivalents," and concluded that he had not. Significantly, the Texas court rejected Gammino's claim that his patents—like Southwestern Bell's allegedly infringing patents—enabled the *selective* blocking of international calls.

<sup>&</sup>lt;sup>32</sup> See Gammino v. Southwestern Bell Telephone, L.P., Civ. A. No. 05-850, N.D. Tex. ("SWB") (Doc. No. 5).

<sup>&</sup>lt;sup>33</sup> SWB, Doc. No. 65.

<sup>&</sup>lt;sup>34</sup> <u>SWB</u>, September 6, 2006 Hr'g Tr. 10-11, Doc. No. 53, Ex. B.

<sup>&</sup>lt;sup>35</sup> SWB, Doc. No. 87.

<sup>&</sup>lt;sup>36</sup> <u>Southwestern Bell</u>, 512 F. Supp. 2d at 638-46. This Court will discuss the substance of each construction is its discussion below.

<sup>&</sup>lt;sup>37</sup> Id. at 638.

Instead, the court found that Gammino's technology actually blocked <u>all</u> international calls based on an analysis of the third pluralities. The Federal Circuit Court affirmed the district court's ruling in 2008<sup>39</sup> and the Supreme Court denied certiorari on October 6, 2008.<sup>40</sup>

### **B.** Claim Construction Analysis

i. "Selectively Enabling," "Transmitting Said Dialing Sequence," "Transmits Said Dialing Sequence" "Means For Preventing," And "At Least Partially Preventing Operation Of"

Contested term (1) ("selectively enabling," "transmitting said dialing sequence," and "transmits said dialing sequence") appears in claims 8 and 10. Contested term (9) ("means for preventing," and "at least partially preventing operation of) appears in claims 14, 22, 28, 35, and 38.

The construction of these terms depends upon resolution of the primary dispute between the parties; it requires that the Court determine whether the invention blocks all international access calls or whether it only blocks international access calls when the numbers in the third plurality of the dialing sequences are predetermined numbers. Consistent with the <u>Southwestern</u> <u>Bell</u> court's opinion, this Court also finds that the claims block all international access calls, and will therefore, adopt Sprint's construction of contested terms (1) and (9).

Construing contested term (1) to block all international calls based on an analysis of the third plurality is consistent with the express language of the Patent's Claims themselves. Claim 1, for example, provides:

<sup>&</sup>lt;sup>38</sup> I<u>d.</u> at 639.

<sup>&</sup>lt;sup>39</sup> <u>Gammino v. Southwetern Bell Telephone, L.P, No. 2007-1257, 2008 WL 515011, \* 1 (Fed. Cir. Feb. 27, 2008).</u>

<sup>&</sup>lt;sup>40</sup> 129 S. Ct. 346 (2008).

<sup>&</sup>lt;sup>41</sup> Southwestern Bell, 512 F. Supp. 2d at 639-41.

"[M]eans for evaluating said third plurality of dialing signals and for preventing establishment of said telephone call if said evaluated third plurality of dialing signals are determined to a) be in a location in said dialing sequence to accomplish international dialing and b) respective *predetermined signals* which are used for international dialing irrespective of said second plurality of dialing signals.<sup>42</sup>

This language indicates that the predetermined signals are those used for international dialing. Gammino's continued reference to the "selective disablement" language, is misplaced. It quotes the language out of context and presents a position completely inconsistent with his prior representations to the Patent Office. The "selective disablement" language refers to the selection of digits (in the third plurality) which used for international dialing from amongst all calls placed at a payphone, not the selective disablement of a subset of such calls international calls.

Relying on intrinsic evidence, particularly the prosecution history, the <u>Southwestern Bell</u> court held that Gammino "understood his invention to block all international calls" based on an analysis of the third plurality. The court found:

During the prosecution of his patents, Gammino repeatedly distinguished prior art that did not block all international calls. The Patent Office rejected Gammino's patents eight times based on prior art call-blocking solutions which blocked some, but not all, international calls. In particular, the Patent Office determined that U.S. Patent No. 4,577,066 (the "Bimonte" patent) anticipated many of Gammino's claims because the Bimonte patent also blocked international calls. To distinguish his patents from Bimonte and other prior art, Gammino argued that his patents, unlike other prior art, blocked *all* international calls based on an analysis of the third plurality of digits. In so distinguishing his patents, Gammino made the following statements to the Patent Office:

"If the digits in the third plurality of digits are digits which are used for international dialing then the call is prevented."

"If certain dialing in the dialing sequence are DETERMINED to be used for international dialing, then prevent the call . . . If . . . certain dialing signals are DETERMINED not to be used for international dialing, then allow the call."

16

<sup>&</sup>lt;sup>42</sup> '125 patent, col. 10, lines 34–41 (emphasis added).

"Applicant is preventing international calls based upon a determination that the call is international. In this way, for example, international calling card fraud is prevented." <sup>43</sup>

Gammino's own statements and representations establish that his invention blocks all international calls. The Patent Office examiner relied on these statements finding that "the invention prevents ALL international calls" and Gammino acquiesced to this finding.<sup>44</sup>

The Court will not succumb to Gammino's attempt to have the Patent terms construed differently now in an effort to have them fit his theory that Sprint infringed on the Patent. As with his attempt to amend his proposed definition of the term "signal value", the Court rejects counsel's attempt to explain that the new position is a result of further reflection by Gammino. It is something other than additional reflection and coincidence that has resulted in an altered definition which supports Gammino's theory of this case. Accordingly, the Court adopts Sprint's proposed construction of contested terms (1) and (9).

# ii. "Predetermined Signals Which Are Used To Accomplish International Dialing"

Contested term (5) ("predetermined signals [or "predetermined digit sequences" or "test signal value sequences") which are used to accomplish [or "for"] international dialing") appears in claims 8, 22, and 35. Construction of this term turns on whether the predetermined signals or digit sequences are (1) the set of all digits which are used for international dialing or (2) any combination of digits that can be used to accomplish international dialing. Consistent with the above analysis, the Court construes this term to mean the set of all digits used for international dialing. As with contested terms (1) and (9), this interpretation is consistent with the express language of the claims.

17

<sup>&</sup>lt;sup>43</sup> Southwestern Bell, 512 F. Supp. 2d at 640.

<sup>&</sup>lt;sup>44</sup> <u>Id.</u> at 641.

For example, Claim 22 provides that the invention is "[a] method for at least partially preventing the operation of a telecommunications device" by, in part, "comparing at least two of said plurality of signal values respectively located at predetermined locations used for international dialing with respective predetermined digit sequences which are used for international dialing." In other words, the invention blocks calls when the digits in the plurality location associated with international dialing (the third plurality) are "predetermined digit sequences which are used for international dialing." The phrase "used for international dialing" defines the predetermined digits sequences which are blocked: all those digit sequences used for international dialing. The digit sequences are not qualified further to indicate that the predetermined digits are only those international digit sequences selected by the user as Gammino suggests.

Moreover, as stated above, the conclusion that the predetermined signals are the set of all digits used for international dialing is supported by Gammino's own representations to the Patent Office which were made in an attempt to distinguish his patent from prior art.

#### iii. "Irrespective Of"

Contested term (6) ("irrespective of said second plurality or dialing signals [or "said plurality of further signal values" or "said second group of signal values"]") appears in claims 8, 22, and 35. Sprint argues that the Court should construe "irrespective of" to mean "without analyzing the content of." Gammino asserts that the term means "enabled or prevented regardless of the second plurality" or "enabled or prevented without caring about the second plurality."

Gammino's position in this regard differs slightly from the position he took before the Southwestern Bell court, a position that was ultimately rejected by that court. In Southwestern

<sup>&</sup>lt;sup>45</sup> '125 Patent, col. 12, lines 39-47.

<u>Bell</u>, Gammino asserted that "irrespective of" means "without regard to." The court rejected his construction, reasoning that because the second plurality of digits is "regarded" to determine their respective location within the dialing sequence, "without regard to" is an improper construction of the term. <sup>47</sup> For these same reasons, this Court rejects Gammino's proposed construction "enabled or prevented *regardless of* the second plurality."

The <u>Southwestern Bell</u> court held that "irrespective of" instead means "without analyzing the content of," as Sprint suggests this Court should agree with that interpretation. The patent provides that "digits and locations in the dialing sequences which should not serve as a basis for preventing completion of a telephone call" are "don't care" values. <sup>48</sup> Gammino's second proposed construction of "irrespective of" incorporates this language ("enabled or prevented *without caring* about the second plurality"), but it lacks precision. While the second plurality is regarded, its content is not analyzed in determining whether a call should be prevented or blocked. Since "without analyzing the content of" is more precise given the context in which this phrase is used, the Court adopts this definition over Gammino's proposed constructions. <sup>49</sup> Additionally, this construction is consistent with the <u>Southwestern Bell</u> court's interpretation of the claim; Gammino has not provided this Court with sufficient justification to interpret the claim differently.

<sup>&</sup>lt;sup>46</sup> Southwestern Bell, 512 F. Supp. 2d at 642.

<sup>&</sup>lt;sup>47</sup> <u>Id.</u> at 643.

<sup>48 &#</sup>x27;125 Patent, col. 4, lines 37-40.

<sup>&</sup>lt;sup>49</sup> The Court is not persuaded by Gammino's argument that "without analyzing the context of" is an improper construction because the dictionary defines "irrespective of" as "regardless" or "without regard to." This Court's role is not to give contested terms their literal meaning but to determine their meaning in the context of the patent at issue.

# iv. "Signal Value"

Contested term (10), "signal value(s)", appears in claims 22, 24, 25, 27, 35, 26, 38, 39, 40, and 41. As explained in footnote 22 above, the parties' proposed constructions as to this term are consistent. In accordance with the position of both parties, the Court construes the term "signal value" to mean a dual-tone multi-frequency ("DTMF") analog signal transferred by hertz tones.

### v. "Telecommunications Device"

"Telecommunications device", contested term (7), appears in claims 22-28 and 35-41. The parties both agree that the construction of this term should include "telecommunications device 210' depicted in Figures 2A, 2B and 2C, and described in column 6, lines 47-53."

Additionally, they agree that the definition should include "telecommunication device 100' depicted in Figures 1A and 1B." Gammino argues, however, that telecommunications device 100 includes input device 110, decoder 120, microprocessor 130, program memory 140, switch 150, telecom interface and tone generation 160, alternate audio source 170, and phone handset 180. Sprint argues that telecommunications device 100 includes only phone handset 180 and input device (or keypad) 110. Gammino's interpretation distinguishes telecommunications device 100 and telecommunications device 210, while Sprint asserts that they are simply different examples of the same unit.

The Court finds that the detailed description beginning at column 3, line 13 of the '125 Patent supports Sprint's construction. The '125 Patent describes devices and interface units which are implemented to block international access code calls before the call reaches an outside commercial network. There is simply no support in the Patent that the invention includes a mobile telephone switching office, a tower, or a telecommunications switch; in fact, the portion

of the specification Gammino cites, at column 3, lines 13 to column 4, line 37, describes telecommunications device 100 as separate from these other units. For example column 3, lines 14-26 provides: "As shown in FIG. 1A, a telecommunications device 100 is *coupled to* telecommunications lines 170 through telecommunication interface and tone generation circuitry 160." Consistent with the entire context of the invention, this language suggests that telecommunications lines 170 and tone generation circuitry 160 are separate from telecommunications device 100. While the telecommunications device or telephone includes a phone handset 180 and input device (or keypad) 110 in Figures 1A and 1B, it does not include the other components.

For these reasons, the Court adopts Sprint's proposed construction. A "telecommunications device" is "'a telephone" or telecommunications device as described in the specification as 'telecommunications device 100' depicted in Figures 1A and 1B and described at column 3, lines 13-21, or 'telecommunications device 210' depicted in Figures 2A, 2B, and 2C and described in column 6, lines 47-53."

# vi. "Telecommunications Apparatus"

"Telecommunications apparatus", contested term 8, appears in claims 8-14. The primary dispute between the parties with respect to this term is whether the telecommunications device and interface unit must be located, with Sprint arguing that the telecommunications device and interface unit must be located on the same side of the network.

The term "telecommunications apparatus" is not defined in the specification, appearing instead, for the first time in the claims. However, the specification is clear that digit sequences

<sup>&</sup>lt;sup>50</sup> See, e.g. '125 Patent, col. 3, lines 13-21.

<sup>&</sup>lt;sup>51</sup> '125 Patent, col. 3, lines 14-16 (emphasis added).

are analyzed to determine if they are international access code calls before being transmitted to a telecommunications line. For example,

In an exemplary embodiment of the present invention, a user enters a plurality of numbers using input device 110. Based on the particular digit sequence which is entered, microprocessor 130 directs telecommunications interface and tone generation 160 to produce appropriate DTMF tones. Assuming switch 150 is in the close position, these tones are transmitted to telecommunications line 170.<sup>52</sup>

This language makes clear that the analysis occurs before the call is transferred to the communications line, on one side of the network.<sup>53</sup>

Additionally, each embodiment of the claim discloses a system on one side of the telecommunications line.<sup>54</sup> Figure 1A, for example, shows a system by which digit sequences are analyzed prior to a call being sent to the communications line consistent with the above-quoted exemplary embodiment of the invention.

While the Court recognizes that the systems depicted and described in the figures and specification are examples only, the claims at issue "must be interpreted, in light of the written description, . . . not beyond it." The specification describes an invention that analyzes and blocks calls before the calls reach an outside network; although the process may take different forms, this feature cannot be altered without expanding the scope of the invention. For these reasons, the Court finds that the telecommunications device and interface unit must be located on the same side of the network, and adopts Sprint's proposed construction.

<sup>53</sup> <u>See also</u> '125 Patent, col. 6, line 66 – col. 7, lines 1-4 ("Although switch 240 is shown connected between telecommunications device 210 and tone converter 260, it is contemplated that switch 240 can be located anywhere between telecommunications device 210 and telecommunications lines 250 which would cause the telephone call to be terminated when the switch is opened.").

<sup>&</sup>lt;sup>52</sup> '125 Patent, col. 4, lines 2-7.

<sup>&</sup>lt;sup>54</sup> <u>See</u> FIG. 1 A, 1B, 2A, 2B, 2C, 3A, 3B. Reference to Figures 3A and 3B, which are not part of the construction, are cited to support the proposition that the claims disclose a system that must be located on one side of the telecommunications line.

#### vii. Means-Plus-Function Terms

"Means for receiving" (contested term (2)), "means for evaluating" (contested term (3)), and "means for transmitting" (contested term (4)), are written in a means-plus-function format and all appear in claim 8.

Title 35, United States Code, § 112(f), authorizes a patentee to draft his claims in this means-plus-function format. Section 112(f) provides: "An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof." Claims written in this format allow a patentee to state the means and function of a structure without the need to recite all possible structures that could be used for performing the claimed function.

"Claim construction of a means-plus-function limitation includes two steps. First, the court must determine the claimed function. Second, the court must identify the corresponding structure in the written description of the patent that performs that function." "Structure disclosed in the specification is 'corresponding' structure only if the specification or prosecution history clearly links or associates that structure to the function recited in the claim." "The requirement that a particular structure be clearly linked with the claimed function in order to qualify as corresponding structure" is "[t]he price that must be paid" for use of the means-plus-

<sup>&</sup>lt;sup>55</sup> Applied Med. Res. Corp. v. U.S. Surgical Corp., 448 F.3d 1324, 1332 (Fed. Cir. 2006) (internal citations omitted).

<sup>&</sup>lt;sup>56</sup> Medtronic, Inc. v. Advanced Cardiovascular Sys., Inc., 248 F.3d 1303, 1311 (Fed Cir. 2001) (internal citation and quotation marks omitted).

function format; it prevents a patentee from claiming that every disclosed structure corresponds to the claimed function. <sup>57</sup>

Claim 8, in which each of the means-plus-function claim terms at issue are found, states:

Telecommunications apparatus for selectively enabling establishment of a telephone call to a telephone number having a central office exchange code via a communications pathway, said telecommunications apparatus being capable of transmitting a dialing sequence which includes a first plurality of dialing signals followed by a second plurality of dialing signals followed by a third plurality of dialing signals, said telecommunications apparatus comprising:

means for receiving said dialing sequence prior to receiving said central office exchange code;

means for evaluating said third plurality of dialing signals in a location in said dialing sequence used for international dialing by determining if said third plurality of dialing signals are used to accomplish international dialing;

means for transmitting said dialing sequence to said communications pathway if said evaluated third plurality of dialing signals are determined to not be predetermined signals which are used to accomplish international dialing irrespective of said second plurality of dialing signals.<sup>58</sup>

The claimed function as to each "means for" term is not in dispute. The function is defined by the language of the claim itself. For example, the "means for receiving" is connected to the claimed function of "*receiving* said dialing sequence prior to receiving said central office exchange code." Having determined the claimed function, the Court must identify the corresponding structure in the written description of the patent that performs this function. <sup>59</sup>

<sup>&</sup>lt;sup>57</sup> Med. Instrumentation & Diagnostics Corp. v. Elekta AB, 344 F.3d 1205, 1211 (Fed. Cir. 2003) (quoting O.I. Corp. v. Tekmar Co., 115 F.3d 1576, 1583 (Fed. Cir, 1997)) (alteration in original).

<sup>&</sup>lt;sup>58</sup> '125 Patent, col. 11, lines 5-25.

<sup>&</sup>lt;sup>59</sup> <u>Applied Med. Res. Corp. v. U.S. Surgical Corp.</u>, 448 F.3d 1324, 1332 (Fed. Cir. 2006) (internal citations omitted).

# a. "Means for Receiving" (Contested Term (2))

Gammino has not "clearly-linked" the function ("receiving said dialing sequence prior to receiving said central office exchange code") with the structures in his proposed construction; rather, he simply identifies every structure in the figures as performing the claimed function.

This interpretation is not supported by the language of the Patent and is exactly what the "clear linkage" requirement is designed to prevent. 60

Decoder 120 in telephone 100, decoder/DTMF generator/tone converter 260 in interface unit 200, or DTMF detector 330 in personal computer 300 are the "means for receiving" the dialing sequence. The specification provides:

As shown in FIG. 1A, input device 110 may be used for entering a plurality of digits into telecommunications device 100. Input device 110 is coupled to decoder 120. . . . Each digit which is entered using input device 110 is detected by decoder 120. Decoder 120 transmits this information to microprocessor 130. Microprocessor 130 then transmits appropriate signals to telecommunication interface and tone generation 160.<sup>61</sup>

A user enters a plurality of digits (or dialing sequence) into input device 110; the digits are received (or detected) by Decoder 120, which then transmits the information to microprocessor 130. This language supports Sprint's proposed construction that Decoder 120 is the "means for receiving" the dialing sequence.

As to Figure 2A, the specification specifically states that "Decoder/DTMF generator 260 *receives* a plurality of telephone numbers which are provided by telecommunications device 210."<sup>62</sup> This language "clearly links" the claimed function to the specific structure as required. Finally, as to Figure 3A, the specification provides that in personal computer 300, "DTMF

<sup>&</sup>lt;sup>60</sup> See generally Med. Instrumentation, 344 F.3d at 1211.

<sup>&</sup>lt;sup>61</sup> '125 Patent, col. 3, lines 58-67.

<sup>62 &#</sup>x27;125 Patent, col. 6, lines 56-58 (emphasis added).

detector 330 converts DTMF signals *received* from telecommunication lines 350 into a plurality of signals which are transmitted to PC System 360."

Accordingly, the Court construes that "means for receiving" term as "Decoder 120 in telephone 100, or decoder/DTMF generator/tone converter 260 in interface unit 200." As with the construction of telecommunications device and apparatus, these structures must necessarily be located on the same side of the commercial telephone network.

b. "Means for Evaluating" (Contested Term (3))

As with his proposed construction of the "means for receiving", Gammino has not "clearly-linked" his proposed structures with the "means for evaluating" function. The Court therefore rejects his proposed construction in favor of the following construction proposed by Sprint: "Microprocessor 130 in telephone 100, or microcontroller 230 in interface unit 200." It is these structures that are linked to the claimed function ("evaluating said third plurality of dialing signals in a location in said dialing sequence used for international dialing by determining if said third plurality of dialing signals are used to accomplish international dialing").

This construction is supported by the following specification language as to microprocessor 130:

[M]icroprocessor 130 *examines* the sequence of digits which are entered by input device 110. If microprocessor 130 *determines* that particular digits have been entered at particular places in the dialing sequence, microprocessor 130 *signals* switch 150 to open, thus disconnecting the call. Such a determination may be performed, for example, by comparing the entered telephone number with a plurality of telephone numbers located in a table which is accessible to microprocessor 130.<sup>64</sup>

This construction is also supported by the following specification language with respect to microcontroller 230:

26

<sup>63 &#</sup>x27;125 Patent, col. 8, lines 48-50.

<sup>&</sup>lt;sup>64</sup> '125 Patent, col. 4, lines 29-37.

The exemplary embodiment which is illustrated by FIG. 2A includes microcontroller 230 which receives instructions from memory 220. Decoder/DTMF generator 260 receives a plurality of telephone numbers which are provided by telecommunications device 210. The telephone number sequence is converted to electrical signals which are transmitted to microcontroller 230. If microcontroller 230 detects that specific, predetermined digits have been entered at particular locations in the dialing sequence (as in the embodiment illustrated by FIG. 1A), microcontroller 230 may signal switch 240 to open. This causes a termination of the telephone call.<sup>65</sup>

# c. "Means for Transmitting" (Contested Term (4))

Again, Gammino has failed to "clearly-link" his proposed structures with the claimed function ("transmitting said dialing sequence to said communications pathway if said evaluated third plurality of dialing signals are determined to not be predetermined signals which are used to accomplish international dialing irrespective of said second plurality of dialing signals"). The "means for transmitting" function is the least clear about the structure to which this term is linked. While there is some language suggesting that Alternate Audio Source 290 in interface unit 200 should be included in this construction, <sup>67</sup> this language does not "clearly link" the structure to the claimed function.

The only structures that are clearly linked to the claimed function are: microprocessor 130, switch 150/150A, and telecom interface and tone generation 160 within telephone 100; and microcontroller 230, switch 240/240A, and decoder/DTMF generator/tone converter 260 in interface unit 200. The Patent describes a process by which microprocessor 130 or microcontroller 230 evaluates the dialing sequence to determine if the call should be transmitted or blocked. Microprocessor 130 or microcontroller 230 then signals to switch 150/150A or

27

<sup>&</sup>lt;sup>65</sup> '125 Patent, col. 6, lines 54-65.

<sup>&</sup>lt;sup>66</sup> See '125 Patent, col. 11, lines 5-25.

<sup>&</sup>lt;sup>67</sup> See, e.g., '125 Paten, col. 7, lines 5-32.

240/240A (respectively) to disconnect (or not to disconnect) telecommunication interface and tone generation 160 or decoder/DTMF generator/tone converter 260 (respectively) from telecommunications line 170.<sup>68</sup>

Accordingly, the Court adopts the following construction of "means for transmitting": microprocessor 130, switch 150/150A, and telecom interface and tone generation 160 within telephone 100; and microcontroller 230, switch 240/240A, and decoder/DTMF generator/tone converter 260 in interface unit 200.

#### V. CONCLUSION

For the foregoing reasons, the Court construes the contested terms at issue as follows:

(1) "selectively enabling," "transmitting said dialing sequence," and "transmits said dialing sequence" (appearing in claims 8 and 10):

Establishing a phone call unless the phone call is an international, access code call.

(2) "means for receiving" (appearing in claim 8):

Decoder 120 in telephone 100, decoder/DTMF generator/tone converter 260 in interface unit 200, or DTMF detector 330 in personal computer 300.

(3) "means for evaluating" (appearing in claim 8):

Microprocessor 130 in telephone 100, or microcontroller 230 in interface unit 200.

(4) "means for transmitting" (appearing in claim 8):

Microprocessor 130, switch 150/150A, and telecom interface and tone generation 160 within telephone 100; and microcontroller 230, switch

<sup>&</sup>lt;sup>68</sup> See '125 Patent, col. 3, lines 66-67 ("Microprocessor 130 then transmits appropriate signals to telecommunication interface and tone generation 160."); col. 5, lines 55-62 ("[W]hen predetermined digits are located at particular locations in the dialing sequence, microprocessor 130 signals switch 150A to disconnect telecommunication interface and tone generation 160 from telecommunication lines 170. Furthermore, the signal which is transmitted from microprocessor 130 causes switch 150A to connect telecommunication interface and tone generation 160 to alternate audio source 190."); col. 6, lines 63-65 ("[M]icrocontroller 230 may signal switch 240 to open. This causes a termination of the telephone call."); col. 7, lines 37-39 ("Microcontroller 230, through converter 260 may then transmit the telephone number to telecommunications line 250.").

240/240A, and decoder/DTMF generator/tone converter 260 in interface unit 200.

(5) "predetermined signals [or "predetermined digit sequences" or "test signal value sequences"] which are used to accomplish [or "for"] international dialing" (appearing in claims 8, 22, and 35):

The set of all sequences of digits which are used for international dialing.

(6) "irrespective of said second plurality or dialing signals [or "said plurality of further signal values" or "said second group of signal values"]" (appearing in claims 8, 22, and 35):

Without analyzing the content of said second plurality of dialing signals, said plurality of further signal values, or said second group of signal values.

- (7) "telecommunications device" (appearing in claims 22-28 and 35-41):
  - "A telephone" or telecommunications device as described in the specification as "telecommunications device 100" depicted in Figures 1A and 1B and described at column 3, lines 13-21, or "telecommunications device 210" depicted in Figures 2A, 2B, and 2C and described in column 6, lines 47-53.
- (8) "telecommunications apparatus" (appearing in claims 8-14):

A telephone or telecommunications device 100 or 210 and interface unit 160 or 200, located outside of an external network (or on the same side of a commercial telecommunications network).

(9) "means for preventing," and "at least partially preventing operation of" (appearing in claims 14, 22, 28, 35, and 38):

#### **Means for preventing:**

In telecommunications device 100, either one or more of, microprocessor 130, switch 150/150a, and telecom interface and tone generation 160; or

In interface unit 200, either one or more of, microcontroller 230, decoder/DTMF generator/tone converter 260, and switch 240.

#### **Preventing step:**

Preventing a phone call if the phone call is an international, access code call.

(10) "signal value(s)" (appearing in claims 22, 24, 25, 27, 35, 26, 38, 39, 40, and 41).

A dual-tone multi-frequency ("DTMF") analog signal transferred by hertz tones.

An appropriate Order follows.